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# ON TAP

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## THE “END OF THE LINE” SCENARIO

What is the “end of the line?” In this case, it means the end of a water distribution pipeline. You probably are at the “end of the line” if you live on a cul-de-sac street or a street that has a dead end. Water flowing through these distribution lines is a special consideration for the District’s Water Department Staff and it has everything to do with chlorine.

Potable water, also called drinking water, must meet rigorous Federal and State standards for drinking water systems. One of these standards is the chlorine level. Chlorine is an excellent and proven disinfectant that protects us from harmful, disease causing bacteria. Federal standards require the minimum amount of chlorine in potable drinking water be maintained at 0.2 parts per million parts of water. To put this unit of measurement in perspective, one part per million is equal to one milligram of chemical for every one liter of water.

Unfortunately, chlorine has the ability to dissipate in water, or literally vanish, through the chemical interaction with the water over an extended period of time. It actually converts to sodium chloride or what is commonly known as table salt, but in undetectable levels, and disinfection byproducts.

This brings us to the “end of the line” issue. When the distribution pipelines are designed and installed, they are sized for two purposes:

- 1) To supply water to the users (homes, buildings, etc.), and

- 2) To provide adequate fire flow to fire hydrants in the event of a fire. In almost every case, the fire flow requirement is the dominant factor for determining the size of the water distribution pipeline, and not the demand of the users of water.

If the water isn’t used often enough, the pipelines simply store the water and the chlorine begins to vanish. How does the District protect its customers and assure that the potable water is meeting Federal standards? The District has a Fire Hydrant Flushing Program. When District Water Department Staff are in the field flushing hydrants, the flushing process itself takes about 5 minutes at each fire hydrant. The flushing at each fire hydrant throughout the District is scheduled to be performed annually.

Fire hydrant flushing is an essential practice that accomplishes two things:

- 1) The removal of sediment buildup, if any, from the distribution lines, and
- 2) Flushing brings fresh water into the line. This fresh water will have normal chlorine residuals and will guarantee protection against harmful bacteria.

Water that is flushed onto the street or road is “dechlorinated” by the District Water Department Staff before it enters the storm drain system. While all distribution lines may not need to be flushed as frequently as others, a comprehensive fire hydrant flushing program of distribution lines is a precautionary protection for everyone.

With all actions there are consequences, and flushing hydrants requires water usage. In an effort to lessen the impact of the water used in the Fire Hydrant Flushing Program, the District has strategically located facilities that are specifically designed with the purpose of recapturing some of this flushed water.

### **DRY SEASON RECOVERY SYSTEM**

In November 2007, the District completed the Dry Season Water Recovery Project (DSWRP). This infrastructure is designed to collect all of the dry season, irrigation runoff generated by the residents of Dove Canyon and the Dove Canyon Golf Course, and returns it to Dove Lake. Also, the water that is used for the Fire Hydrant Flushing Program in these areas is collected as well. Generally, the Dry Season period is during the months of April to October of any calendar year.

In the greater Robinson Ranch and Dove Canyon areas, most of the water enters a storm drain system that is eventually captured by the District's Dry Season Water Recovery System. This water is then added to the District's Reclaimed Water System for reuse on areas irrigated with reclaimed water. This project was a joint effort with Santa Margarita Water District and the Audubon Society.

The District has plans to expand this Dry Season Water Recovery System to capture virtually all of the dry season water from the communities north of Plano Trabuco Road. With time, it is hoped the District can expand its dry season water recovery effort in more of the District to continue its aggressive water conservation efforts.

### **WELLS SITE UPGRADE STATUS**

In recent issues of On Tap, there has been much focus on the Wells Project Upgrade. The District owns two local wells that have the ability to produce four to ten percent of the total District water supply, depending upon annual rainfall levels.

## ***TCWD'S ON TAP***

Due to Federal regulation changes, both Rose Canyon and Lang Wells were considered to be under the influence of surfacewater, due to their proximity to Trabuco Creek. In order to continue using this water for the community, the District was required to upgrade the facilities to meet the treatment standards.

For the next few weeks, it may appear that the work has slowed at the Wells Project Site. This is not the case. In fact, the project will be focusing on the internal aspects of the facility, such as the electrical wiring and the interior structures.

The TCWD Board of Directors, District staff, and the contractor, R.C. Foster Corporation, greatly appreciate the patience, involvement, and the sense of ownership the local community has demonstrated throughout this project.

### **BOARD OF DIRECTORS MEETING**

The Regular Board Meeting is held on the third Wednesday of each month at 7:00 p.m. at the District's office located at 32003 Dove Canyon Drive, Trabuco Canyon. The public is encouraged to attend.

### **BOARD MEETING HIGHLIGHTS**

The Board Meeting was held on July 21, 2010. The following items are highlights from the Meeting:

- Adoption of Resolution 2010-1127 regarding water standby assessment for fiscal year 2010/2011
- Status update relating to Water Monitoring and Water Conservation efforts
- Status update relating to Baker Regional Water Treatment Facility
- Status update relating to Rose Canyon and Lang Wells Groundwater Treatment Facility
- Adoption of Resolution 2010-1141 approving fiscal year 2010/2011 Debt Service Budgetp

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We welcome your comments, suggestions and questions. Please call or write Michael Perea at

**TCWD's ON TAP**

Trabuco Canyon Water District

32003 Dove Canyon Drive

Trabuco Canyon, CA 92679

(949) 858-0277 Telephone (949) 858-3025 Facsimile

[www.tcwd.ca.gov](http://www.tcwd.ca.gov)